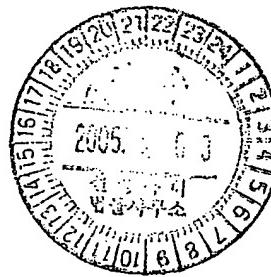


PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)



Applicant's or agent's file reference 04FKWM017	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/KR2004/002631	International filing date (day/month/year) 15 OCTOBER 2004 (15.10.2004)	(Earliest) Priority Date (day/month/year) 16 OCTOBER 2003 (16.10.2003)
Applicant LG ELECTRONICS, INC. et al		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report.

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box No. II)

3. Unity of invention is lacking (See Box No. III)

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 4

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

b. none of the figure is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No:

PCT/KR2004/002631

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 F24C 15/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 F24C 7/02, F24C 15/00, F24C 15/32, H05B 6/80

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Korean Patent and application for inventions since 1975, Korean Utility Models and application for Utility Models since 1975
 Japanese Utility Models and applications for Utility Models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,798,505 A(SAMSUNG ELECTRONICS CO.,LTD.) 25 AUGUST 1998	1, 3, 18, 19
Y	see the whole document	4, 6, 21
Y	JP 7-151334 A(SANYO ELECTRIC CO.,LTD.) 13 JUNE 1995 see the whole document	4, 6, 21
A	KR 1998-018316 U(SAMSUNG ELECTRONICS CO.,LTD.) 6 JULY 1998 see the whole document	1-21
A	KR 1995-33879 U(DAEWOO ELECTRONICS CO.,LTD.) 18 DECEMBER 1995 see the whole document	1-21
A	KR 1995-19971 U(DAEWOO ELECTRONICS CO.,LTD.) 26 JULY 1995 see the whole document	1-21

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	
"A"	document defining the general state of the art which is not considered to be of particular relevance
"E"	earlier application or patent but published on or after the international filing date
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
"O"	document referring to an oral disclosure, use, exhibition or other means
"P"	document published prior to the international filing date but later than the priority date claimed
"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&"	document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
31 JANUARY 2005 (31.01.2005)	31 JANUARY 2005 (31.01.2005)

Name and mailing address of the ISA/KR  Korean Intellectual Property Office 920 Dumsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer CHO, Byoung Do Telephone No. 82-42-481-5475
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